

REMARKS

The present application includes claims 1-15. By this Amendment, claims 1, 6, 10, and 11 have been amended. Claims 16-20 have been added.

The Applicant respectfully submits that the claims of the present application are patentable over Phillips (U.S. Patent No. 6,072,994). Phillips relates to a system that partitions or divides the functions of a radio into channels and divides the functions of each channel into hardwired signal processing and antenna and power usage (Abstract, col. 6, lines 29-39). As illustrated in Figure 1 and described beginning at col. 15, line 48, the channelized receiver system 100 includes an antenna 102, an antenna interface unit (AIU) module 104, and a common receive module 106. Signals pass from the antenna 103 through the AIU 104 to the common receive module 106. The common receive module 106 then outputs the signals to the desired output, for example, the user interface 116 or speaker 112. In Figure 2, a common transmit module 204 is used, rather than the common receive module 106.

The system of Phillips does not teach or suggest a programmable electronic radio system multifunction slice. Also, the system of Phillips does not teach or suggest a programmable module or transceiver that may be used for either transmission or reception of signals. Additionally, Phillips does not teach or suggest a programmable module or transceiver that may be configured to both transmit and receive signals.

Instead, Phillips uses common receive modules and separate common transmit modules (col. 15, lines 55-63, col. 16, lines 45-62). The common receive module and the

common transmit module may be combined with the AIU in a system (col. 11, lines 8-14). Each AIU in a Phillips system is different and is hardwired for a specific function (col. 24, lines 64-67, col. 25, lines 1-4, col. 27, lines 27-35). The tailored, hardwired AIU of Phillips contrasts with the programmable slice structure recited in independent claims 1, 6, and 11 of the present application. In fact, Phillips distinguishes its non-common AIU, common transmit, and common receiver module system from identical programmable channels (col. 24, lines 23-27).

The AIUs in Phillips are application specific (col. 50, lines 63-66). Multiple common transmit modules and common receive modules may use a hardwired, tailored AIU (col. 11, lines 8-14, col. 52, lines 1-3). Alternatively, multiple application-specific AIUs may share a common transmit module or a common receive module (col. 51, lines 35-39).

Phillips does not teach or suggest a plurality of transceivers that may receive and/or transmit. This limitation is recited in independent claims 1, 6, and 11. Rather, Phillips uses a common receive module and a separate common transmit module (Figures 1 and 2, col. 15, lines 56-63, col. 16, lines 45-62). The common receive and common transmit modules of Phillips do not combine and are not interchangeable.

Phillips also does not teach or suggest a programmable processor coupled to a plurality of transceivers and operable to support radio function threads through the plurality of transceivers. This limitation is recited in independent claims 1, 6, and 11. Rather, Phillips uses an AIU hardwired for processing for a particular application (col.

12, lines 10-12, col. 24, lines 64-67, col. 25, lines 1-4, col. 27, lines 27-35). Phillips places functionally-specific hardware in various AIUs.

Furthermore, Phillips does not teach or suggest electronic radio system multifunction slices. This limitation is recited in independent claims 1, 6, and 11. On the contrary, Phillips uses programmable receive modules and programmable transmit modules in conjunction with a hardwired, application specific radio architecture. In Phillips, high-overhead hardware (i.e., hardware that is specific to only a single or relatively few CNI functions, or specific to a particular application, that is, non-common components) is housed separately outside the transmit modules and receive modules (col. 13, lines 22-29, col. 14, lines 59-63, col. 15, lines 55-63). According to Phillips, configuring a radio system otherwise would result in excessive size and cost and preclude practical utility (col. 15, lines 30-34).

Thus, Phillips discusses programmable common transmit modules and common receive modules but not programmable transceiver modules. Phillips does not teach or suggest electronic radio system multifunction slices. Nor does Phillips teach or suggest identical, programmable electronic radio system multifunction slices. Rather, Phillips uses programmable receive modules for receiving different frequencies and distinct programmable transmit modules for transmitting at different frequencies in conjunction with a hardwired, application specific radio architecture. Therefore, the Applicant respectfully submits that independent claims 1, 6, and 11, as well as their dependent claims, should be allowable.

Claim 10 has been amended to correct a typographical error. Additionally, claims 1, 6, and 11 have been amended to include the limitation that the processor is programmable. As mentioned above, Phillips uses a hardwired, application-specific AIU, rather than a programmable processor, for processing with common receive module(s) and common transmit module(s). Consequently, Phillips does not teach all of the limitations of amended claims 1, 6, and 11. Thus, the Applicant respectfully submits that claims 1, 6, and 11 are not anticipated by Phillips and should be allowable. Additionally, claims 2-5, 7-10, and 12-15 depend from claims 1, 6, and 11, respectively, and should therefore also be allowable.

By this Amendment, claims 16-20 have been added. The Applicant respectfully submits that claims 16-20 do not add new matter. New independent claim 16 recites a multifunction aircraft radio system including a plurality of identical multifunction radio slices, a plurality of antennas, and an avionics network. The multifunction radio slices are programmable for a plurality of radio functions. The antennas are switchably connected to the multifunction radio slices and may transmit and receive signals. The avionics network is switchably connected to the multifunction radio slices and delivers information between the aircraft radio system and aircraft avionics. As discussed above, Phillips uses a hardwired, application-specific AIU, rather than a programmable processor, for processing with common receive module(s) and common transmit module(s). Additionally, Phillips does not teach or suggest identical, programmable electronic radio system multifunction slices. Thus, the Applicant respectfully submits

that claim 16 and its dependent claims 17-20 are not anticipated by Phillips and should
allowable.

CONCLUSION

Accordingly, the application as amended is now believed to be in condition for allowance and an action to this effect is respectfully requested.

Please charge any additional fees or credit overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

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